

## CLAIMS

1. A method of interworking teleservice between broadband heterogeneous networks, said heterogeneous networks are connected by call control equipment and media interworking equipment, said call control equipment is used for signaling interworking and controlling call that spans networks, said media interworking equipment is used for mapping media port that spans networks and transmitting media streaming under the control of said call control equipment, said method comprising:

receiving a call request coming from a caller party equipment by the call control equipment;

determining by the call control equipment whether the call request of the caller party equipment is a call that spans heterogeneous networks;

creating connections between the media interworking equipment and the caller party equipment and between the media interworking equipment and a called party equipment under the control of the call control equipment if said call request is a call that spans heterogeneous networks; and transmitting media streaming by the media interworking equipment and realizing media interworking.

2 The method according to claim 1, wherein, said step of creating connection comprising:

creating media port within the caller party equipment;

creating media port that corresponds to the caller party equipment and media port that corresponds to the called party equipment within the media interworking equipment; and

creating media port within the called party equipment.

3 The method according to claim 1, wherein, before the step of transmitting media streaming, said method further comprising:

negotiating media capability with the called party equipment by the caller party

equipment;

translating the format of the media streaming by the media interworking equipment if matching of the media capability of the caller/called party equipment is unsuccessful.

4 The method according to claim 3, wherein, said step of translating the format of the media streaming comprising:

recovering incoming media streaming into original media streaming;

re-encoding and compressing the media streaming according to the needed format of the media.

5 The method according to claim 1, wherein, said call control equipment sends and receives control signaling via H.248 or MGCP protocol.

6 The method according to claim 1, wherein, two or more pieces of call control equipment are connected between said heterogeneous networks, and each of said two or more pieces of call control equipment controls different party equipment respectively, said method further comprising:

transmitting a call request by the call control equipment that controls the caller party equipment to the call control equipment that controls the called party equipment;

designating one piece of call control equipment to control the media interworking equipment.

7 The method according to claim 6, wherein, signaling is transmitted between the call control equipment via session initiation protocol for telephones or bearer independent call control protocol.

8 The method according to claim 1, wherein, two or more pieces of media interworking equipment are connected between said heterogeneous networks, and each of said two or more pieces of media interworking equipment is connected to a different network respectively, said method further comprising:

establishing a media connection between the media interworking equipment connected to the caller party equipment's network and the media interworking equipment connected to the called party equipment's network.

9 The method according to claim 1, wherein, one of said heterogeneous networks is a H.323 network and that H.323 network has a gate keeper and a H.323 gateway therein; the connection between said media interworking equipment and the party equipment in said H.323 network is established by the call control equipment and by the gate keeper that controls the H.323 gateway.

10 The method according to claim 1, wherein, one of said heterogeneous networks is a SIP network and that SIP network has a SIP proxy and a SIP user agent therein; the connection between said media interworking equipment and the party equipment in said SIP network is established by the call control equipment and by the SIP proxy that controls the SIP user agent.

11 A system of interworking teleservice between broadband heterogeneous networks, comprising:

a piece of media interworking equipment connected between said heterogeneous networks for transmitting media streaming between said heterogeneous networks;

a piece of call control equipment connected between said heterogeneous networks for processing call request that spans networks, transmitting signaling and controlling said media interworking equipment;

the media interworking equipment implements teleservice interworking between heterogeneous networks by establishing a media port that corresponds to caller party equipment and a media port that corresponds to called party equipment and mapping the two media ports under the control of said call control equipment.

12 The system according to claim 11, wherein, said media interworking equipment comprising:

a protocol module for receiving control data from said call control equipment,

creating said media ports and establishing correspondence relationship of said media ports;

a media transmitting and mapping unit for transmitting media streaming that comes into the media interworking equipment according to said established correspondence relationship.

13 The system according to claim 12, wherein, said media interworking equipment further comprising:

a media translating unit for processing format translation for the media streaming when the media capability or format at both sides does not match.

14 The system according to claim 11, wherein, said call control equipment comprising:

a protocol adapter for receiving and sending control data and receiving call request coming from party equipment;

a call server 202 for controlling call that spans said heterogeneous networks.